

## Claims

### What is claimed is:

- 5 1. A method for producing a consumable product from potatoes, comprising:
  - (a) treating a potato substance with an effective amount of one or more exogenous enzymes selected from the group consisting of an amyloglucosidase, glucose oxidase, laccase, lipase, maltogenic amylase, pectinase, pentosanase, protease, and transglutaminase, and
  - 10 (b) processing the enzyme-treated potato substance to produce a potato product.
2. The method of claim 1, wherein the pectinase enzyme is selected from the group consisting of arabinanase, arabinofuranosidase, galactanase, rhamnogalacturonan acetylerase, rhamnogalacturonase, rhamnogalacturonan lyase, pectate lyase, pectin acetylerase, pectin lyase, pectin methylesterase, and polygalacturonase.
- 15 3. The method of claim 1, wherein the pectinase enzyme is pectin methylesterase.
4. The method of claim 1, wherein the potato substance is obtained from Bintje, Russet Burbank, Kennebec, Norchip, Atlantic, Shepody, Sebago, Red Pontiac, Red Warba, Irish Cobbler "BC", Norgold Russet "BC", Norland, Atlantic, White Rose, Superior, Centennial Russet, Keswick "NB 1", and Green Mountain.
- 20 5. The method of any of claims 1-4, wherein the potato substance is selected from the group consisting of raw potato, potato dough, and potato batter.
- 25 6. The method of any of claims 1-5, further comprising blanching the potato substance prior to the enzymatic treatment.
- 30 7. The method of any of claims 1-5, further comprising blanching the potato substance concurrently with the enzyme treatment step.
8. The method of any of claims 1-7, further comprising partially drying the potato substance after the enzymatic treatment.
- 35 9. The method of claim 8, further comprising a resting step after partial drying.

10. The method of any of claims 1-9, further comprising parfrying the enzyme-treated potato substance before processing to produce the potato product.

5 11. The method of any of claims 1-10, further comprising freezing the enzyme-treated potato substance before processing to produce the potato product.

12. The method of any of claims 1-11, further comprising coating the potato substance.

10 13. The method of claim 12, wherein the coating is a hydrocolloid coating and/or a starch-based coating.

14. The method of any of claims 1-13, further comprising treating the potato substance with a starch degrading enzyme during the enzyme-treatment step.

15 15. The method of claim 14, wherein the starch degrading enzyme is an alpha-amylase.

16. The method of any of claims 1-15, wherein the processing of the enzyme-treated potato substance comprises baking, frying, or microwaving.

20 17. The method of any of claims 1-16, wherein the potato product is fried.

18. The method of claim 17, wherein the fried potato product is French fries.

25 19. The method of claim 17, wherein the fried potato product is potato chips.

20. The method of any of claims 1-16, wherein the potato product is baked.

21. The method of claim 20, wherein the baked potato product is potato chips.

30 22. The method of any of claims 1-16, wherein the potato product is frozen.

23. The method of claim 22, wherein the frozen potato product is French fries.

35 24. The method of claim 23, wherein the frozen French fries have been parfried before freezing.

25. The method of any of claims 1-24, wherein the potato product resulting from enzyme-treatment has an improved property selected from the group consisting of an increased crispiness, enhanced colour, faded colour, increased stiffness, rugged surface, improved flavour, and lower fat content, compared to a potato product obtained without enzyme treatment.

26. The method of any of claims 1-24, wherein the potato product resulting from enzyme-treatment has an increased crispiness compared to a potato product obtained without enzyme treatment.

27. The method of claim 26, wherein the potato product resulting from enzyme-treatment remains crispy for an extended period of time compared to a potato product obtained without the enzyme treatment.

28. The method of any of claims 1-24, wherein the potato product resulting from enzyme-treatment has an enhanced colour compared to a potato product obtained without enzyme treatment.

29. The method of any of claims 1-24, wherein the potato product resulting from enzyme-treatment has a faded colour compared to a potato product obtained without enzyme treatment.

30. The method of any of claims 1-24, wherein the potato product resulting from enzyme-treatment has an increased stiffness compared to a potato product obtained without enzyme treatment.

31. The method of any of claims 1-24, wherein the potato product resulting from enzyme-treatment has a rugged surface compared to a potato product obtained without enzyme treatment.

32. The method of any of claims 1-24, wherein the potato product resulting from enzyme-treatment has an improved flavour compared to a potato product obtained without enzyme treatment.

33. The method of any of claims 1-24, wherein the potato product resulting from enzyme-

treatment has a lower fat content compared to a potato product obtained without enzyme treatment.

34. The method of any of claims 1-33, wherein the one or more enzymes are obtained from a microbial organism.

35. The method of any of claims 1-34, wherein the effective amount of the enzyme is about 0.01 mg to about 100 mg per kilogram of potato substance.

36. The method of claim 35, wherein the effective amount of the enzyme is about 0.1 mg to about 25 mg per kilogram of potato substance.

37. The method of claim 36, wherein the effective amount of the enzyme is about 0.5 mg to about 5 mg per kilogram of potato substance.

38. The method of claim 37, wherein the effective amount of the enzyme is about 1 mg to about 5 mg per kilogram of potato substance.

39. A potato product obtained by the method of any of claims 1-38.